

INFORMATION DISCLOSURE CITATION  (Use several sheets if necessary) Page 1 of 3		ATTY DOCKET NO: <b>5080.114 (DIV3)</b>		SERIAL NO.		
		<b>APPLICANT: MICHAEL S. BITTAR</b>				
		FILING DATE: Herewith		GROUP:		
<b>U.S. PATENT DOCUMENTS</b>						
Ex. Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	<b>3,014,177</b>	12/19/61	<b>HUNGERFORD, ET AL.</b>	324/8		06/24/57
	<b>3,187,252</b>	06/01/65	<b>HUNGERFORD</b>	324/6		12/18/61
	<b>3,808,520</b>	04/30/74	<b>RUNGE</b>	324/6		04/04/73
	<b>4,302,722</b>	11/24/81	<b>GIANZERO</b>	324/339		06/15/79
	<b>4,536,714</b>	08/20/85	<b>CLARK</b>	324/338		04/16/82
	<b>4,651,101</b>	03/17/87	<b>BARBER, ET AL.</b>	324/339		04/03/85
	<b>4,780,857</b>	10/25/88	<b>LYLE, ET AL.</b>	367/35		12/02/87
	<b>4,808,929</b>	02/28/89	<b>OLDIGS</b>	324/339		05/19/87
	<b>RE 32,913</b>	04/25/89	<b>CLARK</b>	324/338		07/23/87
	<b>4,873,488</b>	10/10/89	<b>BARBER, ET AL.</b>	324/339		11/18/86
	<b>4,940,943</b>	07/10/90	<b>BARTEL, ET AL.</b>	324/338		04/19/88
<b>FOREIGN PATENT DOCUMENTS</b>						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
	92402243.7	08/06/92	European Patent Office	G01V 3/12		YES    NO
	97118854.5	10/29/97	European Patent Office	G01V 3/30		YES    NO
<b>OTHER DOCUMENTS (Include Author, Title, Date, Pertinent Pages, Etc.)</b>						
	Zhu, T. and L. Brown, "Two-dimensional Velocity Inversion and Synthetic Seismogram Computation," GEOPHYSICS, Vol. 52, No. 1, January 1987; p. 37-49.					
	Bittar, M. and P. Rodney, "The Effects of Rock Anisotropy on MWD Electromagnetic Wave Resistivity Sensors," THE LOG ANALYST, January-February 1996, p. 20-30.					
	Hagiwara, T., "A New Method to Determine Horizontal-Resistivity in Anisotropic Formations without Prior Knowledge of Relative Dip," 37 <sup>th</sup> SPWLA Annual Logging Symposium, New Orleans, LA, 16-19 June 1996, p. 1-5 and three pages of figures.					
	Bittar, M., P. Rodney, S. Mack, and R. Bartel, "A True Multiple Depth of Investigation Electromagnetic Wave Resistivity Sensor: Theory, Experiment and Prototype Field Test Results," SPE 22705, 66 <sup>th</sup> Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, Dallas, TX, October 6-9, 1991, p. 1-8 and ten pages of figures.					
EXAMINER			DATE CONSIDERED			
<p>* Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form next communication to applicant.</p>						

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<b>U.S. PATENT DOCUMENTS</b>						
Ex. Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4,962,490	10/09/90	LYLE, ET AL.	367/35		01/18/90
	4,980,643	12/25/90	GIANZERO, ET AL.	324/339		09/28/89
	5,200,705	04/06/93	CLARK, ET AL.	324/338		10/31/91
	5,230,386	07/27/93	WU, ET AL.	175/45		06/14/91
	5,241,273	08/31/93	LULING	324/338		06/24/91
	5,278,507	01/11/94	BARTEL, ET AL.	324/338		06/14/91
	5,329,448	07/12/94	ROSTHAL	364/422		08/07/91
	5,389,881	02/14/95	BITTAR, ET AL.	324/338		07/22/92
	5,508,616	04/16/96	SATO, ET AL.	324/343		11/20/93
	5,530,358	06/25/96	WISLER, ET AL.	324/338		01/25/94
	5,550,473	08/27/96	KLEIN	324/338		03/29/95
	5,656,930	08/12/97	HAGIWARA	324/339		02/06/95
<b>FOREIGN PATENT DOCUMENTS</b>						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
<b>OTHER DOCUMENTS (Include Author, Title, Date, Pertinent Pages, Etc.)</b>						
	Mack, S., P. Rodney, and M. Bittar, "MWD tool accurately measures four resistivities," reprint from OIL & GAS JOURNAL, week of May 25, 1992, p. 1-5.					
	Bittar, M., P. Rodney, and W. Hendricks, "Invasion Profiling With a Multiple Depth of Investigation Electromagnetic Wave Resistivity Sensor," SPE 28425, 69 <sup>th</sup> Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, New Orleans, LA, 25-28 September 1994, p. 1-12 and eleven pages of figures.					
	Luling, M.G., R. Rosthal, and F. Shray, "Processing and Modeling 2-MHz Resistivity Tools in Dipping, Laminated Anisotropic Formations," SPWLA 35 <sup>th</sup> Annual Logging Symposium, 19-22 June 1994, p. 1-25.					
EXAMINER		DATE CONSIDERED				
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<b>U.S. PATENT DOCUMENTS</b>					
Ex. Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS
	<b>5,757,191</b>	05/26/98	<b>GIANZERO</b>	324/339	
	<b>5,886,526</b>	03/23/99	<b>WU</b>	324/338	
	<b>6,044,325</b>	03/28/00	<b>CHAKRAVARTHY, ET AL.</b>	702/7	
	<b>6,181,138</b>	01/30/01	<b>HAGIWARA, ET AL.</b>	324/338	
<b>FOREIGN PATENT DOCUMENTS</b>					
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS
<b>OTHER DOCUMENTS (Include Author, Title, Date, Pertinent Pages, Etc.)</b>					
	Bonner, et al, "A New Generation of Electrode Resistivity Measurements for Formation Evaluation While Drilling," SPWLA 35 <sup>th</sup> Annual Logging Symposium, 19-22 June, 1994.				
EXAMINER			DATE CONSIDERED		

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